

Application No.: 09/577,347

Docket No.: 20140-00247-US

## VIII.

## CLAIMS APPENDIX

13. A method for polishing a silicon dioxide surface in contact with a silicon nitride which comprises providing on the silicon dioxide surface a slurry comprising abrasive particles and an anionic polyelectrolyte in an amount sufficient to increase the polishing rate ratio of the silicon dioxide to the silicon nitride and contact said surface with a polishing pad.

14. The method of claim 13 wherein the polyelectrolyte has a molecular weight of less than about 100,000.

15. The method of claim 13 wherein the polyelectrolyte is selected from the groups consisting of poly (acrylic acid), poly (methacrylic acid), poly (methyl methacrylic acid), poly (maleic acid), and poly (vinylsulfonic acid).

16. The method of claim 13 wherein the polyelectrolyte is poly (acrylic acid).

17. The method of claim 13 wherein the amount of the abrasive particles is about 0.1 to about 20 percent by weight.

18. A method for polishing a metal surface which is in contact with at least one member elected from the group consisting of silicon dioxide, silicon nitride and silicon oxynitride which method comprises providing on the metal surface a slurry comprising abrasive particles and a cationic polyelectrolyte in an amount sufficient to increase the polishing rate ratio of the metal to said member and contacting said surface with a polishing pad.

19. The method of claim 18 wherein the polyelectrolyte is selected from the group consisting of poly (vinylamine), poly (ethylenimine), and poly (4- vinylpyridine).

20. The method of claim 18 wherein the polyelectrolyte is polyethylenimine.

21. The method of claim 18 wherein the metal is W, Cu or Al.

22. The method of claim 13 wherein the polyelectrolyte has a molecular weight of about 300 to about 20,000.

23. The method of claim 13 wherein the abrasive particles comprise a member selected from the group consisting of ceria, alumina, silica and zirconia.

24. The method of claim 13 wherein the amount of abrasive particles is about 0.3 to about 2 percent by weight.

25. The method of claim 13 wherein the amount of said polyelectrolyte is about 0.05 percent by weight.

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13 26. The method of claim <sup>1</sup>13 wherein the amount of said polyelectrolyte is about 0.05 to about 5 percent by weight.

15 27. The method of claim <sup>1</sup>13 wherein the amount of polyelectrolyte is about 0.3 to about 1 percent by weight.

23 28. The method of claim <sup>23</sup>18 wherein the polyelectrolyte has a weight of less than about 100,000.

24 29. The method of claim <sup>24</sup>18 wherein the polyelectrolyte has a molecular weight of about 300 to about 20,000.

8 30. The method of claim <sup>7</sup>23 wherein the abrasive particles comprise a member selected from the group consisting of ceria, alumina, silica and zirconia.

10 31. The method of claim <sup>9</sup>24 wherein the amount of abrasive particles is about 0.3 to about 2 percent by weight.

12 32. The method of claim <sup>11</sup>25 wherein the amount of said polyelectrolyte is about 0.05 percent by weight.

14 33. The method of claim <sup>13</sup>26 wherein the amount of said polyelectrolyte is about 0.05 to about 5 percent by weight.

16 34. The method of claim <sup>15</sup>27 wherein the amount of polyelectrolyte is about 0.3 to about 1 percent by weight.

17 35. The method of claim <sup>1</sup>13 wherein the slurry is an aqueous slurry.

18 36. The method of claim <sup>1</sup>23 wherein the slurry is an aqueous slurry.

Art Unit: 1700

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*Claims 1-12. (Cancelled)*

13. (Amended) A method for polishing a silicon dioxide surface in contact with a silicon nitride which comprises providing on the silicon dioxide surface a slurry comprising abrasive particles and an anionic polyelectrolyte in an amount sufficient to increase the polishing rate ratio of the silicon dioxide to the silicon nitride and contact said surface with a polishing pad.

14. The method of claim 13 wherein the polyelectrolyte has a molecular weight of less than about 100,000.

15. The method of claim 13 wherein the polyelectrolyte is selected from the groups consisting of poly (acrylic acid), poly (methacrylic acid), poly (methyl methacrylic acid), poly (maleic acid), and poly (vinylsulfonic acid).

16. The method of claim 13 wherein the polyelectrolyte is poly (acrylic acid).

17. The method of claim 13 wherein the amount of the abrasive particles is about 0.1 to about 20 percent by weight.

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18. (Amended) A method for polishing a metal surface which is in contact with at least one member elected from the group consisting of silicon dioxide, silicon nitride and silicon oxynitride which method comprises providing on the metal surface a slurry comprising abrasive particles and a cationic polyelectrolyte in an amount sufficient to increase the polishing rate ratio of the metal to said member and contacting said surface with a polishing pad.

19. The method of claim 18 wherein the polyelectrolyte is selected from the group consisting of poly (vinylamine), poly (ethylenimine), and poly (4-vinylpyridine).

20. The method of claim 18 wherein the polyelectrolyte is polyethylenimine.

21. The method of claim 18 wherein the metal is W, Cu or Al.

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22. (New) The method of claim 13 wherein the polyelectrolyte has a molecular weight of about 300 to about 20,000.

23. (New) The method of claim 13 wherein the abrasive particles comprise a member selected from the group consisting of ceria, alumina, silica and zirconia.

7 24. (New) the method of claim 13 wherein the amount of abrasive particles is about 0.3 to about 2 percent by weight.

25. (New) The method of claim 13 wherein the amount of said polyelectrolyte is about 0.05 percent by weight.

26. (New) The method of claim 13 wherein the amount of said polyelectrolyte is about 0.05 to about 5 percent by weight.

27. (New) The method of claim 13 wherein the amount of polyelectrolyte is about 0.3 to about 1 percent by weight.

28. (New) The method of claim 18 wherein the polyelectrolyte has a weight of less than about 100,000.

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29. (New) The method of claim 18 wherein the polyelectrolyte has a molecular weight of about 300 to about 20,000.

30. (New) The method of claim 23 wherein the abrasive particles comprise a member selected from the group consisting of ceria, alumina, silica and zirconia.

31. (New) The method of claim 24 wherein the amount of abrasive particles is about 0.3 to about 2 percent by weight.

32. (New) The method of claim 25 wherein the amount of said polyelectrolyte is about 0.05 percent by weight.

33. (New) The method of claim 26 wherein the amount of said polyelectrolyte is about 0.05 to about 5 percent by weight.

34. (New) The method of claim 27 wherein the amount of polyelectrolyte is about 0.3 to about 1 percent by weight.

35. (New) The method of claim 13 wherein the slurry is an aqueous slurry.

36. (New) The method of claim 23 wherein the slurry is an aqueous slurry.